BRUHAT BENGALURU MAHANAGARA PALIKE

Yelahanka Division

Name of Work :Improvements to roads & drains at Chikkabommasandra and Allalasandra in ward no.04.

Job code: Est .Cost Rs. 100.00 Lakhs

Sl No	Description of Items	Unit	No	L	B	D	Qty	Rate	Amount
	Removing and refixing stone slabs of drains and pointing in CM (1:3)(Pg no 27/5.33)								
		Sqm							
	Chikkabommasandra main road	LHS	1	225.00	1.20		270.00		
		RHS	1	225.00	1.20		270.00		
	2nd B cross road from Chikkbommasandra main road		2	124.00	0.90		223.20		
	3rd B cross road from Chikkbommasandra main road		2	124.00	0.90		223.20		
1	L J Iyengars bakery road	LHS	1	255.00	0.90		229.50		
		RHS	1	255.00	0.90		229.50		
	2nd B cross road		2	50.00	0.90		90.00		
	1st B cross road		2	50.00	0.90		90.00		
							1625.40		
	Missing Slabs 30%						487.62		
							1137.78	111.30	126634.91
	Basic Rate	105.00							
	Area Weightage @ 6%	6.30							
		111.30							
	KSRRB 300-3. Earthwork excavation by manual means in ordinary soil involving in average horizontal throw up to 2m & an average lift upto 1.5m , excavated surface leveled & sides neatly dressed , the disposed earth to be levelled neatly after breaking of clods complete as per specification MORTH/ Chapter 3. Page No. 142/ Item No. 19.1/ PWD SR 2018-19								
	Desilt								
	Chikkabommasandra main road	LHS	1	225.00	0.60	0.60	81.00		
		RHS	1	225.00	0.60	0.60	81.00		
	2nd B cross road from Chikkbommasandra main road		2	124.00	0.60	0.60	89.28		
	3rd B cross road from Chikkbommasandra main road		2	124.00	0.60	0.60	89.28		
	L J Iyengars bakery road	LHS	1	255.00	0.60	0.60	91.80		
		RHS	1	255.00	0.60	0.60	91.80		
	2nd B cross road		2	50.00	0.60	0.60	36.00		
2	1st B cross road		2	50.00	0.60	0.60	36.00		
	Earthwork								
	Chikkabommasandra main road	LHS	1	70.00	1.35	0.90	85.05		
		RHS	1	55.00	1.35	0.90	66.83		
	New Culvert								
	Chikkabommasandra main road	RHS	2	7.50	1.80	0.90	24.30		
							772.34	233.20	180108.52
	Basic Rate	130.00							
	Loading & unLoading	57.00							
	Add for lead for earth (1.28 Tonne / Cum) 16km	38.40							
	Area Weightage @ 6%	7.80							
		233.20							
	KSRB 4-1.2 : Providing and laying in position plain cement concrete of cum mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. KBS 4.1.4.2 (Page No.13, I No.4.2 of KPWD SR 2018-19)								
	Bed Concrete								
	Chikkabommasandra main road	LHS	1	70.00	1.20	0.15	12.60		
3		RHS	1	55.00	1.20	0.15	9.90		
	New Culvert								
	Chikkabommasandra main road	RHS	2	7.50	1.50	0.15	3.38		
							25.88	5505.64	142458.44
	Basic Rate	5194.00							
	Area Weightage @ 6%	311.64							
	Total	5505.64							

	KSRB 4.2.2 : Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @ 320 kgs, with 20mm and down size graded granite metal coarse aggregates @0.878cum and fine aggregates @ 0.459cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15cms thick, vibrated for all works in foundation plinth and ground floor level for roof slabs, staircase, lintles, retaining walls, return walls, walls (any thickness) including attached plasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cill, fillet etc. including cost of all materials, labour, HOM of machinery, curing, complete as per specifications. Specification No. KBS 4.1, 4.6 (Page 14/4.11) 2018-19									
	Walls									
	Chikkabommasandra main road	LHS	2	70.00	0.15	0.90	18.90			
		RHS	2	55.00	0.15	0.90	14.85			
	Raft									
	Chikkabommasandra main road	LHS	1	70.00	0.90	0.15	9.45			
4		RHS	1	55.00	0.90	0.15	7.43			
	Walls						50.63			
	New Culvert									
	Chikkabommasandra main road	RHS	4	7.50	0.20	0.90	5.40			
	Raft									
	New Culvert									
	Chikkabommasandra main road	RHS	2	7.50	1.20	0.15	2.70			
							8.10			
	Basic Rate	5659.00					58.73	5998.54	352264.26	
	Area Weightage @ 6%	339.54								
	Total	5998.54								
	KSRB 4.6.4 : **Providing and removing centering, shuttering**, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2 (Page 16/4.31) of KPWD S.R 2018-19									
	Bed Concrete									
	Chikkabommasandra main road	LHS	4	70.00		0.90	252.00			
5		RHS	4	55.00		0.90	198.00			
	New Culvert									
	Chikkabommasandra main road	RHS	8	7.50		0.90	54.00			
							504.00	379.48	191257.92	
	Basic Rate	358.00								
	Area Weightage @ 6%	21.48								
	Total	379.48								
	KSRB 4.9.2 : Providing **T.M.T Fe 500 steel** reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured & paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3(P-18/4.46.2)									
	For Drain	Ton								
	Total RCC Quantity =	Cum					50.63			
	For 1 Cum = 60	Kg					60.00			
		Kg					3037.50			
6	**For Culvert**	Ton								
	Total RCC Quantity =	Cum					8.10			
	For 1 Cum = 85	Kg					85.00			
		Kg					688.50			
							3.73	75223.96	280284.47	
	Basic Rate	70966.00								
	Area Weightage @ 6%	4,257.96								
	Total	75223.96								
	Providing & laying precast drain cover slab of 100 mm thickness in CM 1:3 including cost of all materials, labour, curing, transportation, loading, unloading etc. complete as per the directions of the Engineer In Charge (1.20 x 0.60 x 0.10)Data rate									
		Sqm								
	Missing slab						487.62			
7	Chikkabommasandra main road	LHS	1	70.00	0.90		63.00			
		RHS	1	55.00	0.90		49.50			
							600.12	2095.00	1257251.40	
	DATA Rate	2095.00								
	Total	2095.00								

Providing & laying precast drain cover slab of 250 mm thickness in CM 1:3 including cost of all materials, labour, curing, transportation, loading, unloading etc, complete as per the directions of the Engineer In Charge.(1.2 x 0.60 x 0.10)Data rate

8	Covering slab	Sqm							
	New Culvert								
	Chikkabommasandra main road	RHS	2	7.60	1.85		28.12		
							28.12	5418.00	152354.16
		Sqm							
	Data Rate	5418.00							
	Total	5418.00							

KSRRB M300-14 Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location to a lead of 1.00 km and complete as per specifications. MORTH Specification No.301(pg no-143,S.Lno-19.14)KPWD S.R 2018-19

9	Road Work	Cum							
	cc road								
	cross road		1	55.00	6.00	0.30	99.00		
							99.00	151.66	15014.34
	Basic Rate	41.00							
	Loading & unLoading	57.00							
	Add for lead for earth (1.28 Tonne / Cum) for 16km	51.20							
	Area Weightage @ 6%	2.46							
		151.66							

KSRRB M500-1 Construction of dry lean cement concrete mix CC1 5.10 with OPC cement @160Kgs. with 25mm and down sizegraded granite metal coarse aggregate at 0.86cum and fine aggregates @ 0.58cum Sub- base over a prepared sub-grade with (coarse and fine aggregate conforming to IS: 383) aggregate cement ratio not to exceed 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content not to be less than 160 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications MORTH Specification No. 601. (P No.174, I No. 22.1 of PWD SR 2018-19)

10	cc road	Cum							
	cross road		1	55.00	6.00	0.15	49.50		
							49.50	3800.10	188104.95
	Basic Rate	3585.00							
	Area Weightage @ 6%	215.10							
	Total	3800.10							

KSRRB M500-2 Cement Concrete Pavement - Construction of un- reinforced, dowel jointed, plain cement concrete pavement over a prepared sub base with 25mm and down size graded granite metal coarse aggregate with superplastisizer at 3lts conforming to IS 9103- 1999 reaffirmed 2008, (Coarse and fine aggregate conforming to IS 383) mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. MORTH Specification No. 602 - with M30 @ 360 Kg/cum Cement, C.A. 0.69 cum F.A. 0.46 cum (P No.175, I No. 22.2.2 of PWD SR 2018-19)

11	cc road	cum							
	cross road		1	55.00	6.00	0.15	49.50		
							49.50	5849.08	289529.46
	Basic Rate	5518.00							
	Area Weightage @ 6%	331.08							
	Total	5849.08							

Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift. (P.No.176, I No. 22.7 of PWD SR 2018-19)

12	cc road	Sqm							
	cross road		1	55.00	6.00		330.00		
							330.00	72.08	23786.40
	Basic Rate	68.00							
	Area Weightage @ 6%	4.08							
	Total	72.08							

KSRRB 300-50 Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by road roller attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM of machineries complete as per specifications. MORTH / Chapter 3

		Cum							

13	2nd B cross road		1	50.00	6.60	0.20	66.00		
	3rd B cross road		1	50.00	6.00	0.20	60.00		
	Basic Rate	39.00							
	Add for lead earth (1.28 tonne/cum) for 15km	48.00							
	Area Weightage @ 6%	2.34							
	Total	89.34					126.00	89.34	11257

KSRRB M300-14. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location to a lead of 1.00 km and complete as per specifications. MORTH Specification No.301(pg no-143.S.Lno-19.14)KPWD S.R 2018-19

	Road Work	Cum							
	Chikkabommasandra main road	LHS	1	320.00	1.80	0.30	172.80		
	2nd B cross road from Chikkbommasandra main road		1	124.00	1.80	0.30	66.96		
	1st B cross road from Chikkbommasandra main road		1	124.00	1.80	0.30	66.96		
14	L J Iyengars bakery road	LHS	1	280.00	1.80	0.30	151.20		
	2nd B cross road		1	50.00	6.60	0.30	99.00		
	3rd B cross road		1	50.00	6.00	0.30	90.00		
	cross road		1	135.00	1.80	0.30	72.90		
							719.82	138.86	99954.21
	Basic Rate	41.00							
	Loading & unLoading	57.00							
	Add for lead for earth (1.28 Tonne / Cum) for 15km	38.40							
	Area Weightage @ 6%	2.46							
		138.86							

KSRRB M400-6.1. Construction of granular sub-base by providing close graded material, mixing in a mechanical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications.
A. Plant Mix Method For Grading II Material (pg no- 153.S.Lno-20.5)KPWD S.R 2018-19

		Cum							
	Chikkabommasandra main road	LHS	1	320.00	1.80	0.15	86.40		
	2nd B cross road from Chikkbommasandra main road		1	124.00	1.80	0.15	33.48		
15	1st B cross road from Chikkbommasandra main road		1	124.00	1.80	0.15	33.48		
	L J Iyengars bakery road	LHS	1	280.00	1.80	0.15	75.60		
	2nd B cross road		1	50.00	6.60	0.15	49.50		
	3rd B cross road		1	50.00	6.00	0.15	45.00		
	cross road		1	135.00	1.80	0.15	36.45		
							359.91	1994.92	717991.66
	Basic Rate	1682.00							
	Area Weightage @ 6%	112.92							
	Total	1994.92							

KSRRB M400-17 Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 Page No. 155/ Item No. 20.18/ PWD SR 2018-19

		Cum							
	Chikkabommasandra main road	LHS	1	320.00	1.80	0.20	115.20		
	2nd B cross road from Chikkbommasandra main road		1	124.00	1.80	0.20	44.64		
16	1st B cross road from Chikkbommasandra main road		1	124.00	1.80	0.20	44.64		
	L J Iyengars bakery road	LHS	1	280.00	1.80	0.20	100.80		
	2nd B cross road		1	50.00	6.60	0.20	66.00		
	3rd B cross road		1	50.00	6.00	0.20	60.00		
	cross road		1	135.00	1.80	0.20	48.60		
							479.9	2001.28	960374.25
	Basic Rate	1688.00							
	Area Weightage @ 6%	113.28							
	Total	2001.28							

	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM ,including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per Specifications. MORTH Specification No. 502 Complete with all lead and lift and as per the direction of the Engineer-in-Charge. Page No. 161/ Item No. 21.6/ PWD SR 2018-19								
		Sqm							
	Chikkabommasandra main road	LHS	1	320.00	1.80		576.00		
	2nd B cross road from Chikkbommasandra main road		1	124.00	1.80		223.20		
17	1st B cross road from Chikkbommasandra main road		1	124.00	1.80		223.20		
	L J Iyengars bakery road	LHS	1	280.00	1.80		504.00		
	2nd B cross road		1	50.00	6.60		330.00		
	3rd B cross road		1	50.00	6.00		300.00		
	cross road		1	135.00	1.80		243.00		
	Basic Rate	34.00					2399.4	36.04	86474.38
	Area Weightage @ 6%	2.04							
	Total	36.04							
	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications. MORTH Specification No. 507 - using 100/120 TPH capacity H.M.P. with sensor paver Gr-1 (80 mm to 100mm) with 4 % VG-30 Bitumen Page No. 160/ Item No. 21.17.3/ PWD SR 2018-19								
		Cum							
	Chikkabommasandra main road	LHS	1	320.00	1.80	0.050	28.80		
	2nd B cross road from Chikkbommasandra main road		1	124.00	1.80	0.050	11.16		
18	1st B cross road from Chikkbommasandra main road		1	124.00	1.80	0.050	11.16		
	L J Iyengars bakery road	LHS	1	280.00	1.80	0.050	25.20		
	2nd B cross road		1	50.00	6.60	0.050	16.50		
	3rd B cross road		1	50.00	6.00	0.050	15.00		
	cross road		1	135.00	1.80	0.05	12.15		
							120.0	7138.04	856350.66
	Basic Rate	6734.00							
	Area Weightage @ 6%	404.04							
	Total	7138.04							
	KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH / Chapter 5 Complete with all lead and lift and as per the direction of the Engineer-in-Charge Page No. 158/ Item No. 21.2/ PWD SR 2018-19								
		Sqm							
	Chikkabommasandra main road	LHS	1	320.00	11.00		3520.00		
	2nd B cross road from Chikkbommasandra main road		1	124.00	4.30		533.20		
19	1st B cross road from Chikkbommasandra main road		1	124.00	5.50		682.00		
	L J Iyengars bakery road	LHS	1	280.00	6.00		1680.00		
	2nd B cross road		1	50.00	6.60		330.00		
	3rd B cross road		1	50.00	6.00		300.00		
	cross road		1	135.00	6.00		810.00		
							7855.20	5.30	41633
	Basic Rate	5.00							
	Area Weightage @ 6%	0.30							
	Total	5.30							
	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH/Chapter 5 Page No. 158/ Item No. 21.7/ PWD SR 2018-19								
		Sqm							
	Chikkabommasandra main road	LHS	1	320.00	11.00		3520.00		
	2nd B cross road from Chikkbommasandra main road		1	124.00	4.30		533.20		
20	1st B cross road from Chikkbommasandra main road		1	124.00	5.50		682.00		
	L J Iyengars bakery road	LHS	1	280.00	6.00		1680.00		
	2nd B cross road		1	50.00	6.60		330.00		
	3rd B cross road		1	50.00	6.00		300.00		

cross road			1	135.00	6.00		810.00		
	Basic Rate	14.00					7855.2	14.84	116571.17
	Area Weightage @ 6%	0.84							
	Total	14.84							

21 KSRRB M500- 19. Providing, laying bituminousConcrete using 40/60 TPH capacity H.M.P with Mechanical paver Gr-II(30mm to 45mm), crushed aggregates of specified grading premixed with 5.4% VG 30 grade bituminous binder and filler , transporting the hot mix to work site , laying to the required grade,level and alignment, rolling with wheeled , vibratory and tandeem rollers to achieve the desired compaction as per MORTH Table-500.9 including all leads and lift cost of all materials, labour, HOM of machineries complete as per specifications MORTH Specification No.509 Complete with all lead and lift and as per the direction of the Engineer-in-Charge. Page No. 162/ Item No. 21.23.4/ PWD SR 2018-19

		Cum							
Chikkabommasandra main road		~~LHS~~	1	320.00	11.00	0.040	140.80		
2nd B cross road from Chikkbommasandra main road			1	124.00	4.30	0.040	21.33		
1st B cross road from Chikkbommasandra main road			1	124.00	5.50	0.040	27.28		
L J Iyengars bakery road		LHS	1	280.00	6.00	0.040	67.20		
2nd B cross road			1	50.00	6.00	0.040	12.00		
3rd B cross road			1	50.00	6.60	0.040	13.20		
cross road			1	135.00	6.00	0.040	32.40		
	Basic Rate	7778.00					314.21	8244.68	2590544.41
	Area Weightage @ 6%	466.68							
	Total	8244.68							

22 KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC 35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803

		Sqm							
Chikkabommasandra main road		LHS	2.5	320.00	0.15		120.00		
2nd B cross road from Chikkbommasandra main road			2.5	124.00	0.15		46.50		
1st B cross road from Chikkbommasandra main road			2.5	124.00	0.10		31.00		
L J Iyengars bakery road		LHS	2.5	280.00	0.15		105.00		
2nd B cross road			2.5	50.00	0.15		18.75		
3rd B cross road			2.5	50.00	0.10		12.50		
cross road			2.5	135.00	0.10		33.75		
	Basic Rate	429.00					367.5	454.74	167116.95
	Area Weightage @ 6%	25.74							
	Total	454.74							

GST 12%	Sub Total	8847316.31
Project Management Consultancy 0.5%		1061677.96
Detailed project report 0.5%		44236.58
Miscellaneous and unforseen Charges		44236.58
		2532.57
	Total	10000000.00

CERTIFICATE

1 The Work spot has been inspected and the work found to be necessary
2 The Estimate is prepared as per the PWD SR 2018-19
3 The Provision made in estimate are adequate and essential
4 The work comes under BBMP limits.

Technical Sanction
Accorded For Rs. 100.00 lakhs only
Head of A/C P.2.4.5
CER NO :...170..... Dt:.. 10.12.2018

TA CE (YNK)

Asst Engineer
Ward No-04

Executive Engineer
Yelahanka -Division
BBMP

Removing and refixing stone slabs of	Sqm							
14th cross road	LHS	1	385.00	0.90		346.50		
	RHS	1	355.00	0.90		319.50		
14th main road	LHS	1	1025.00	0.90		922.50		
	RHS	1	1000.00	0.90		900.00		
						2488.50		
Missing Slabs 20%						497.70		
Basic Rate	106.00					1990.80	111.30	221618.04
Area Weightage @ 5%	5.30							
	111.30							

1

KSRBB 300-3 Earthwork excavation by manual means in ordinary soil including in average lead upto 50 m & lift upto 1.5m , excavated surface leveled & sides neatly dressed , the disposal soil to be leveled neatly after breaking of lumps complete as per specification MORTH Chapter 3, Page No. 140/ Item No. 15.1) P.W.D SR 2018-19

Desilt								
14th cross road	LHS	1	385.00	0.90	0.90	311.85		
	RHS	1	355.00	0.90	0.90	287.55		
14th main road	LHS	1	1025.00	0.90	0.90	830.25		
	RHS	1	1000.00	0.90	0.90	810.00		
2 New Drain						2239.65		
13th main road		2	300.00	1.20	0.90	648.00		
Basic Rate	106.00					2887.65	111.30	321378.05
Loading & unloading	61.00							
Add or less for each 0.25 Tons Lead Over	28.80							
Area Weightage @ 5%	7.80							
	203.60							

KSRB 4-7.2 Providing and laying in position cast in situ cement concrete M-15 (1:2:4) with 20 mm nominal size graded granite metal using approved quality cement including curing complete as per specifications MORTH Clause 1703 Page No.

Bed Concrete								
New Drain								
13th main road		2	300.00	1.20	0.90	648.00		
Basic Rate	3744.00							
Area Weightage @ 5%	187.20							
	3931.20							

2

3

5	Concrete								
	10th main road								
		LHS	8	242.00		0.90	1742.40		
							1742.40	379.48	661205.95
	Basic Rate	358.00							
	Area Weightage @ 6%	21.48							
	Total	379.48							
6	KSRB 4.9.2 : Providing T.M.T Fe 500 steel reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured & paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3(P-18/4.46.2)								
	For Drain	Ton							
	Total RCC Quantity =	Cum					196.02		
	For 1 Cum = 60	Kg					60.00		
		Kg					11.76	75223.96	884724.04
	Basic Rate	70966.00							
	Area Weightage @ 6%	4,257.96							
	Total	75223.96							
7	Providing & laying precast drain cover slab of 100 mm thickness in CM 1:3 including cost of all materials, labour, curing, transportation, loading, unloading etc, complete as per the directions of the Engineer In Charge (1.20 x 0.60 x 0.10)Data rate								
		Sqm							
	Missing slab						497.70		
	10th main road		2	242.00	0.90		435.60		
							933.30	2095.00	1955263.50
	DATA Rate	2095.00							
	Total	2095.00							
8	Removing and resetting of kerb stones. Page No. 270/ Item No.37.57/ PWD SR 2018-19								
		mtr							
	14th cross road	LHS	1	385.00			385.00		
		RHS	1	355.00			355.00		
	14th main road	LHS	1	1025.00			1025.00		
		RHS	1	1000.00			1000.00		
							2765.00		
	Missing kerb 25%						691.25		
	Basic Rate	99.00					2073.75	104.94	217619.33
	Area Weightage @ 6%	5.94							
	Total	104.94							
9	Providing and fixing pre cast solid concrete kerb stones of size 450x150x500 mm made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting ete., complete.Page No. 27/ Item No. 5.29.2/ PWD SR 2018-19								
		No's							
							691.25		
	No Of Kerb Legth/.45						1536.11	467.46	718070.50
	Basic Rate	441.00							
	Area Weightage @ 6%	26.46							
	Total	467.46							
10	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 Page No. 180/ Item No. 24.1/ PWD SR 2018-19								
		Sqm							
			1	691.25	0.40		276.50		
							276.50	84.80	23447.20
	Basic Rate	80.00							
	Area Weightage @ 6%	4.80							
	Total	84.80							
	Removing and resetting of footpath slab Page No. 270/ Item No.37.56/ PWD SR 2018-19								
		mtr							

11	14th main road Flatherup	LHS	1	1025.00	1.20		1230.00		
		RHS	1	1000.00	1.20		1200.00		
							2430.00		
	Missing cobble stone 30%						729.00		
	Basic Rate	197.00					1701.00	208.82	355202.82
	Area Weightage @ 6%	11.82							
	Total	208.82							

12	KSRB 14.6-1. Providing and laying heavy duty cobble stones 60mm thick interlock pavers, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. Specification No. KBS. (P.No. 103, I.No. 14.6 of CSR 2018-19)								
		mtr							
	Missing cobble stone 30%						729.00		
	Basic Rate	1053.00					729.00	1116.18	813695.22
	Area Weightage @ 6%	63.18							
	Total	1116.18							

13	KSRRB M300-14. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location to a lead of 1.00 km and complete as per specifications. MORTH Specification No 301(pg no-143,S.Lno-19.14)KPWD S.R 2018-19								
	Road Work	Cum							
	Railway parallel road		1	221.00	1.20	0.30	79.56		
							79.56	138.86	11047.70
	Basic Rate	41.00							
	Loading & unLoading	57.00							
	Add for lead for earth (1.28 Tonne / Cum) for 15km	38.40							
	Area Weightage @ 6%	2.46							
		138.86							

14	KSRRB M400-6.1. Construction of granular sub-base by providing close graded material, mixing in a mechaical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. A. Plant Mix Method For Grading II Material (pg no- 153,S.Lno-20.5)KPWD S.R 2018-19								
		Cum							
	Railway parallel road		1	221.00	1.20	0.15	39.78		
							39.78	1994.92	79357.92
	Basic Rate	1882.00							
	Area Weightage @ 6%	112.92							
	Total	1994.92							

15	KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 Page No. 155/ Item No. 20.18/ PWD SR 2018-19								
		Cum							
	Railway parallel road		1	221.00	1.20	0.150	39.78		
							39.8	2001.28	79610.92
	Basic Rate	1868.00							
	Area Weightage @ 6%	113.28							
	Total	2001.28							79650.94

including clearing of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical ...
Specifications. MORTH Specification No. 502 Complete with all lead and lift and as per the direction of the Engineer-in-Charge. Page No. 161/ Item No. 21.6/ PWD SR 2018-19

16	Railway parallel road	Sqm	1	221.00	1.20		265.20		
			1	76.00	1.20		91.20		
							356.4	36.04	12844.66
	Basic Rate	34.00							
	Area Weightage @ 6%	2.04							
	Total	36.04							

KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications. MORTH Specification No. 507 - using 100/120 TPH capacity H.M.P. with sensor paver Gr-1 (80 mm to 100mm) with 4 % VG-30 Bitumen Page No. 160/ Item No. 21.17.3/ PWD SR 2018-19

17	Railway parallel road	Cum	1	221.00	1.20	0.050	13.26		
			1	76.00	1.20	0.050	4.56		
							17.8	7138.04	127199.87
	Basic Rate	6734.00							
	Area Weightage @ 6%	404.04							
	Total	7138.04							

KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH / Chapter 5 Complete with all lead and lift and as per the direction of the Engineer-in-Charge.Page No. 158/ Item No. 21.2/ PWD SR 2018-19

18	Railway parallel road	Sqm	1	221.00	6.50		1436.50		
	Cross road		1	76.00	5.00		380.00		
							1816.50	5.30	9627
	Basic Rate	5.00							
	Area Weightage @ 6%	0.30							
	Total	5.30							

KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH/Chapter 5 Page No. 158/ Item No. 21.7/ PWD SR 2018-19

19	Railway parallel road	Sqm	1	221.00	6.50		1436.50		
	Cross road		1	76.00	5.00		380.00		
							1816.5	14.84	26956.86
	Basic Rate	14.00							
	Area Weightage @ 6%	0.84							
	Total	14.84							

KSRRB M500- 19. Providing, laying bituminousConcrete using 40/60 TPH capacity H.M.P with Mechanical paver Gr-II(30mm to 45mm), crushed aggregates of specified grading premixed with 5.4% VG 30 grade bituminous binder and filler , transporting the hot mix to work site , laying to the required grade,level and alignment, rolling with wheeled , vibratory and tandeem rollers to achieve the desired compaction as per MORTH Table-500.9 including all leads and lift cost of all materials, labour, HOM of machineries complete as per specifications MORTH Specification No.509 Complete with all lead and lift and as per the direction of the Engineer-in-Charge. Page No. 162/ Item No. 21.23.4/ PWD SR 2018-19

20	Railway parallel road	Cum	1	221.00	6.50	0.040	57.46		
	Cross road		1	76.00	5.20	0.040	15.81		
							73.27	8244.68	604071.21
	Basic Rate	7778.00							

	KSRRB M800-13 Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803								
21		Sqm							
	Railway parallel road		2.5	221.00	0.10		55.25		
	Basic Rate	429.00					55.3	454.74	25124.39
	Area Weightage @ 6%	25.74							
	Total	454.74							
								Sub Total	8848700.15
	GST 12%								1061844.02
	Project Management Consultancy 0.5%								44243.50
	Detailed project report 0.5%								44243.50
	Miscellaneous and unforseen Charges								968.83
								Total	10000000.00

CERTIFICATE

1 The Work spot has been inspected and the work found to be necessary

2 The Estimate is prepared as per the PWD SR 2018-19

3 The Provision made in estimate are adequate and essential

4 The area comes under BBMP limits.

CIVIL QUALITY CONSULTANTS & ENGINEERS ★ Bangalore Consultants

Asst Engineer
Ward No-04

ಸಹಾಯಕ Executive Engineer
Yelahanka ಯಲಹಂಕ ಉಪವಿಭಾಗ,
ಬ.ಬ.ಎಂ.ಪಿ ಬೆಂಗಳೂರು-106

Executive Engineer
Yelahanka -Division
BBMP

Administrative Sanction for Rs. 300.00
Three crores
is accorded under head P.2415
Reserve fund for Tenders
Registered as CE No. ..... Subject to conditions contained in enclosed memo No. EE/YNK/AS/41/2020-21 Dt. 18.9.2020

Evaluation Officer

Technical Sanction
Accorded For Rs. 100.00 lakhs only
Head of A/C P.2415
CER NO :1.72 Dt: 10.12.2018

TA

CE (YNK)